

CHUMAKOV, M.P.; VOROSHILOVA, M.K.; DZAGUROV, S.G.; DROZDOV, S.G.;
LASHKEVICH, V.A.; MIRONOVA, L.L.; RAL'F, H.M.; SINYAK, Z.M.;
BARTOSHEVICH, Ye.N.; VASIL'YEVA, K.A.; GAGARINA, A.V.;
GRACHEV, V.P.; ZHEVANDROVA, V.I.; TARANOVA, G.P.; KOROLEVA, G.A.;
KUKAYN, R.A.; ROBINZON, I.A.; TYUFANOV, A.V.; EL'BERT, L.B.

Results of mass immunization with live poliomyelitis vaccine
and the prospects for eradication of this disease. Vest.
AMN SSSR 18 no.6:5-15 '63. (MIRA 17:1)

SIKIRYAVYY, A.G.; CHUMICHEV, A.S.; NIKOLAYEV, V.A.; TARANOVA, L.D.;
GUSINSKAYA, M.S.

Work of the separation plant of the Ertil' Sugar Factory. Sakh.
prom. no.4:21-23 Ap '60. (MIRA 13:8)

1. Direktor Ertil'skogo sakharnogo zavoda (for Sikiryavyy).
2. Glavnyy inzhener Ertil'skogo sakharnogo zavoda (for Chumichev).
3. Nachal'nik planovogo otdela Ertil'skogo sakharnogo zavoda (for Taranova).
4. Pomoshchnik starshego khimika po separatsii Ertil'skogo sakharnogo zavoda (for Gusinskaya).
(Ertil'--Sugar manufacture)

TARANOVA, L.

Accounting at the separation section. Sakh. prom. 34 no. 12:35-
36 D '60. (MIRA 13:12)

1. Ertil'skiy sakharnyy zavod.
(Sugar manufacture--Accounting)

TARANOVA N.P., PROKHOROVA M.I. , SOKOLOVA G.P. (USSR)

"Intensity of Metabolism of Lipid Fractions of the Brain"

Report presented at the 5th Int'l Biochemistry Congress,
Moscow, 10-16 Aug. 1961

TARANOVA, N.P.

Rate of cerebroside and ganglioside metabolism in the brain. Vest.
IGU 16 no.9:114-122 '61. (MIFA 14:5)
(CEREBROSIDES) (GANGLIOSIDES) (BRAIN)

TARANOVA, N.P.

Method of isolation of cerebrosides and determination of their
specific activity. Nerv. sist. (Leningrad) 2 no.3:21-27 '62.

(MIRA 17:7)

1. Laboratoriya obmena veshchestv kafedry biokhimi i fiziologicheskogo
instituta imeni Ukhtomskogo Leningradskogo gosudarstvennogo universi-
teta.

BARNOVA, N. I.

Content of ver-drosides in the brain of rats of different ages.
Vest. IGU 19 no.9.97-1981 164. (1981-17-19)

TARANOVA, M.P.

Isolation and purification of gangliosides and determination
of their radioactivity following administration of C^{14} . Vop.
med. khim. 10 no.6:624-627 N-D '64. (MIRA 19:1)

1. Kafedra biokhimii Leningradskogo gosudarstvennogo universiteta.

MAKEYEVA, Ye.D.; BLYUDOV, A.P.; VEYSMAN, S.G.; MIKHAYLOVA, K.M.;
TARANOVA, N.V.

Plastic lubricants based on aminated bentonite clays. Khim. i
tekh.topl. i masel 9 no.2:30-36 F '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polucheniyu iskusstvennogo zhidkego topliva.

3.1810
3.1510

40457
S/C35/62/000/009/027/050
A001/A1G1

AUTHOR: Taranova, O. G.

TITLE: On absolute photometry of spectra of auroras and night sky

PERIODICAL: Referativnyy zhurnal, *Astronomiya i Geodeziya*, no. 9, 1962, 64.
abstract 9A450 (In collection: "Spektr. elektrofotometr. i radio-
lokats. issled. polyarn. siyaniy i svecheniya nochn. neba, no. 6".
M., AN SSSR, 1961, 23 - 30, English summary)

TEXT: Absolute intensities of emissions recorded photographically by means of a spectrograph can be determined very accurately, conducting simultaneously observations with a calibrating photometer. Observations of auroras were carried out at the Loparskaya station (near Murmansk) during February-March 1960 by means of spectrographs СП-48 (SP-48) and SP-50 and an electric photometer. The latter was calibrated on absolute scale using the Moon during a night with a good transparency of atmosphere, i.e., under conditions approaching the observational conditions of night sky and auroras. In order to obtain intensity distribution of photographical spectrum in relative units, the spectrograph was calibrated spectrally by means of a standard lamp and dispersing magnesium screen. Two spectral regions, λ 410,000 - 12,000 and λ 4800 - 6000, were photographed. Two series of observations during
Card /2

On absolute photometry of spectra of auroras and...

5/035/62/000/100/02/1/60
A001/A101

March 15 - 16 and 31 were processed. On March 15 - 16 the SP-50 spectrograph was used. The photometer recorded emission of the zenith region with a λ 5577 filter. The spectrum obtained in the region of λ 10,000 - 12,000 contained the OH bands: (9,5), (4,1) and (5,2). On March 30 - 31, observations were conducted with the SP-48 spectrograph. The photometer recorded emission of the zenith region during the entire exposure. Intensities of the measured emissions were expressed in intensity units of λ 5577 during the photometering of spectra. The average, over the exposure time, absolute intensity of emission, passed through the filter during zenith observations, was determined by integrating the area under the curve of recorded intensity of λ 5577 according to electrophotometric observations. In processing simultaneous observations with a photometer and a spectrograph, which permit energy distribution in auroral spectrum to be determined with a high resolving power, absolute intensities of emissions in the photographic spectrum are determined at once. Using the method described, the absolute intensities of the following emissions in auroral spectra were found: λ 5004, 5200, 5228, 5632, 5680, 5958 and the bands Ω (5,2) and Ω (4,1).

4x

L. Yerasova

[Abstracter's note: Complete translation]

Card 2/2

L1182
S/169/62/000/009/109/120
D228/D307

3.5/20
AUTHOR:

Taranova, O. G.

TITLE:

Continuous background in night sky and auroral radiation

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 9, 1962, 15, abstract 9G123 (In collection: Polyarn. siyaniya i svecheniye nochn. neba, no. 8, M., AN SSSR, 1962, 21-23 (summary in Eng.))

TEXT: The energy distribution in the continuous background of airglow and auroral spectra in absolute units for the 5600-6900 Å region was studied at Stn. Loparskaya in January-February 1961. Spectra were photographed by means of a ЦП-48 (SP-48) spectrograph on A-700 (A-700) presensitized astronomic film with 2 - 4-hr. exposures. The continuous background's average absolute intensity was determined from simultaneous electrophotometric measurements in the spectral sections ~5890 and 6300 Å. The absence of 1PGN₂ bands in

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S/169/62/000/009/109/120
D228/D307

Continuous background in ...

processable spectra served as a criterion of the fact that emission corresponds to airglow. The average energy distribution of the continuous background in the airglow spectrum is given. There is a maximum around λ 5900 Å which is, on an average, equal to 4.5 rayleighs/Å. The maximum intensity of λ 5900 Å reached 10 rayleighs/Å, the minimum being 3 rayleighs/Å. The continuous background's spectral energy distribution in a G-type aurora is presented. The background's mean intensity is lower than in the airglow spectrum. There is a maximum around λ 5900 Å. In a DA-tape aurora two maxima -- around λ 6000 and 6400 Å -- are observed in the continuous background's energy distribution. [Abstracter's note: Complete translation.]

Card 2/2

L 46919-66 ET(1)/FCC GW

ACC NR: AR6015224

SOURCE CODE: UR/0269/65/000/012/0058/0059

AUTHOR: Taranova, O. G.

TITLE: On the statistical analysis of photoelectric measurements with filters

SOURCE: Ref. zh. Astronomiya, Abs. 12. 51. 447

REF SOURCE: Polyarn. siyaniya i svecheniye nochn. neba No. 11, M., Nauka, 1965, 35-42

TOPIC TAGS: emission spectrum, photoelectric measurement, spectral distribution, G2 star, star

ABSTRACT: An analysis of the photoelectric observations on the emissions of the nocturnal sky was conducted at λ 5300 and λ 5893 for spectra of various types corresponding to various star classes in order to test the possibility of using spectral distribution of a continuum on G2-type stars. The calculations showed that the correlation coefficients for spectra of all types approach zero. This

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UDC: 551.593.5

L 46919-66

ACC NR: AR6015224

makes it impossible to make a reliable calculation for even the middle-spectrum-type of the continuum, or to make a judgement about its variations. Additional emission of approximately λ 5700 is the part of the background which remains after the G2 class stars of the background have been subtracted. Orig. art. has: 20 reference items. [Translation of abstract] [FM]

SUB CODE: 03/

Card 2/2^{fv}

TARANOVA, R. D.

29718

Novyy Pribor dlya Elyektrotitrovaniya. (Konstruktsiya Tsyentr. Nauch-isslyed.
Laboratorii kontrol'no-izmerit. Priburov). Vinodyeliyo i Vinogradarstvo SSSR.
1949, No. 9, S. 33-34

So: Letopis' No. 40

(A)

16

Hydroxymethylfurfural in grape wines. N. N. Protsenko and N. D. Taranova. *Vinodriv i Vinogradarstvo S.S.S.R.* 9, No. 11, 48-9 (1968).—Hydroxymethylfurfural, derived from fructose by concn. or caramelization in uncontrolled thermal treatment, was detected colorimetrically with 1,3,5-C₆H₃(OH)₃ in 16 of 24 port wines of different origins, 6 of 8 madeira-type wines, and in a malaga wine. Harold Outfield

VIL'YANO VV.
~~WILLIAMS, W.V.~~; TARANOVA, R.D.

Determination of the pigments of red wine. Vinodeliye i Vinogradarstvo
S.S.S.R. 10, No.4, 29-30 '50. (MLRA 3:3)
(CA 47 no.16:8310 '53)

T. V. Williams, R.D.

J Chromatographic separation of the coloring substances of wine. V. V. Vil'yams and R. D. Taranova (K. A. Timir-
 yazev Agr. Acad., Moscow). *Vinogradarstvo*
 S.S.S.R. 11, No. 7, 16-18 (1951).--The sepn. and detn.
 of coloring substances in wine. A 170 mm. long and 8-10 mm.
 diam. glass tube was tightly packed with fat-free cotton-
 cellulose wool to the height of 140 mm. One to three ml.
 wine (0.1-0.5) samples were neklined by addn. of a drop of
 concd. HCl, diltd. 1:2 with distd. water, and transferred to
 the chromatographic column. It was eluted from the column
 first with distd. H₂O acidified by HCl to pH 1-2; It was
 eluted next with acidified (pH 1-2) 50% EtOH. The elu-
 tion rate was 15-20 drops/min. The eluate contg. I was
 diltd. 1:1 with EtOH and that contg. II brought to certain
 vol. by addn. of 50% EtOH; aliquots of the solns. were then
 taken for spectroscopic detns. (Pulfrich spectrophotometer
 530 m μ , filter S-63) with a pure prepn. of II as a standard.
 To obtain the amt. of I the value found on the standard
 curve was multiplied by 1.44. The amts. of I and II,
 found in 3 different wines, were 115.2, 298, and 310.8, and
 50, 200, and 300 mg./l., resp. The method can be success-
 fully used for the sepn. of the aglucon from any glucoside
 of any anthocyanin pigment. E. Wierbicki.]

TARANOVA, V. N.

USSR / Microbiology. General Microbiology

F-1

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5068

Author : Taranova, V.N., Fomicheva, A.S.

Inst : Not given

Title : Diagnostic Significance of Cultures With Induced Properties of Tularemia Bacteria and Heteroantigenic Cultures.

Orig Pub : Rostovsk.-n.-D. gos. n.-i. trotivochnn, in-ta, 1956, 10, 187-196

Abstract : Under the influence of cultivation of different gramnegative and grampositive rod-shaped forms and grampositive cocci in filtrates of tularemia bacteria, and also in mixed cultures with these bacteria, the tested cultures acquired antigenic properties of para-agglutination jointly with tularemia bacteria, and also their biochemical features were somewhat changed.

Card : 1/2

USSR / Microbiology. General Microbiology

F-1

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5068

However, there were also successfully isolated cultures of different bacteria which were agglutinated by anti-tularemia sera from organisms of healthy animals or animals sick with other infectious diseases (anthrax, brucellosis). In a similar percentage of cases "para-agglutinating" strains were obtained also from animal organisms ill with tularemia, which militates against the contention that these strains are specific para-strains. The same agglutinating cultures were isolated from the air. Therefore, along with "induced" (by breeding) properties, there may exist heteroantigenic strains in nature, which removes the practical significance of "parastrains" isolated in natural conditions which are agglutinated by antitularemia sera.

Card : 2/2

PATUROYEV, V.V., irzh.; Primali uchastiye: ZHIDELEVA, V.K.; KORMILITSINA,
V.V.; TARANOVA, V.N.

Strengthening asbestos cement and other materials with polyester
foam plastics. Trudy TSNIISK no.24:323-349 '63. (MIRA 17:1)

-TARANOVA Ye. A.

TSINOVSKIY, Ya. P.; OZOL, A. M., redaktor; TARANOVA, Ye. A., kandidat sel'skokhoyaystvennykh nauk; OSTROUMOV, E. A., kandidat biologicheskikh nauk; LUS, Ya. Ya., professor; OZOL, E. Ya., kandidat sel'skokhoyaystvennykh nauk; BOLITIS, V. K., kandidat sel'skokhoyaystvennykh nauk; VENGORANOVICH, A., redaktor; SHMIT, I., tekhnicheskii redaktor.

[Insects of Latvia; horn-tails and sawflies] Nasekomye Latvii skoi SSR; rogokhvoisty i polil'shchiki. Riga, Izd-vo Akademii nauk Latvii skoi SSR, 1953. 208 p. (MLRA 7:11)

1. Deystvitel'nyy chlen Akademii nauk Latvii skoy SSR (for Ozol) (Latvia--Hymenoptera) (Hymenoptera--Latvia) (Sawflies)

TARANOVA, Ye. A.

TARANOVA, Ye. A. — "Interpollination of Standard Grades of Apples of the Latvian SSR with Michurin Grades and the Selection of Pollinators for Them." Latvian Agricultural Academy, 1951. (Dissertation for the Degree of Candidate of Agricultural Sciences)

SO: Izvestiya Ak. Nauk Latvyskov SSR, No. 9, Sept. 1955

USSR / General Biology. Genetics. Plant Genetics.
Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14442

Author : Taranova, Ye. A.
Inst : Academy of Sciences Latvian SSR
Title : The Inheritance of Properties of Winter-hardiness in the Hybrid Seedlings of an Apple Tree

Orig Pub : Izv. AN LatvSSR, 1957, No 8, 57-62

Abstract : The hybridization was carried out 1) of highly winter-hardy varieties among themselves; 2) highly winter-hardy varieties of local origin with varieties of low winter-hardiness of local and foreign origins; 3) of varieties of low winter-hardiness, which were, however, distinguished by good fruit quality among themselves. In 1949, hybridization was

/ General Biology. Genetics. Plant Genetics.

B

s Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14442

performed and more than 5,000 hybrid seedlings were cultivated. A triple selection was carried out and a quantity of 1,100 prospective numbers was separated. The cultivation of hybrids and parent forms was carried out in 10 rayons of the Republic, wheroby at each locality hybrids and parent forms were cultivated under the same conditions. The most winter-hardy varieties were: fall striped, white transparent Wells, the Trobu Seedling, Antonovka of 600 g. When interhybridization of highly winter-hardy varieties was performed, considerably more winter-hardy hybrid seedlings were obtained than when highly winter-hardy varieties were hybridized with those of low winter-hardiness or when varieties of

Card 2/3

/ General Biology. Genetics. Plant Genetics.

B

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14442

low winter-hardiness were hybridized among themselves. One can see from the data given that a successfully combined selection of apple trees is determined by a selection of the most winter-hardy local varieties of apple trees. -- S. Ya. Krayevoy

Card 3/3

55

TARANOVA, Ye. (Riga)

Dynamics of reserve substances and frost resistibility of apple trees. Vestis Latv ak no.6:133-136 '60.

(EEAI 10:9)

1. Akademiya nauk Latvyskoy SSR, Institut biologii.

(Apple (Frost)

TARANOVA, Ye. (Riga)

Morphology of the apple tree pollen. Vestis Latv ak no.8:112-114
'60. (EEAI 10:9)

1. Akademiya nauk Latvviyskoy SSR, Institut biologii.

(Apple) (Pollen) (Morphology)

TARANOVA, Ye.

Characteristics and heredity properties of wild species found in specimens of cultivated varieties of apples. Vestis Latv ak no.6: 111-121 '61.

1. Akademiya nauk Latvyskoy SSR, Institut biologii.

(Apple)

TARANOVICH, G. L.

USSR/Medicine - Burns

Jul/Aug 53

"Replenishment of Losses of Ascorbic Acid (I) Occurring in Various Organs of Guinea Pigs Subsequently to Burns," M. F. Merezhinskiy, G. L. Taranovich, V. S. Ivanova, Chair of Biochem, Minsk Med Inst

Vop Pit, Vol 12, No 4, pp 6-13

The exptl data obtained indicate that burns covering 1/5-1/4 of the surface of the body of guinea pigs result in a considerable depletion of I in the suprarenals, skin, liver, and muscles. The losses are greatest in the suprarenals and least in the muscles. Administration of I expedited the healing of the burns.

269T37

W. A. ...

... , S. I.: "The concentrations of ascorbic acid in the suprarenal glands and the muscular tissue in barns on ... -
... of vitamin C ... of the animal." ... State ...
... , 1955. (Dissertation for the Degree of ...
... Sciences).

Source: Knishna

TARANOVICH, G. L.

112. Deposition and Excretion of Ascorbic Acid After Burns

"Deposition and Excretion of Ascorbic Acid After Burning of Guinea Pigs Which Have Received Various Quantities of Vitamin C," by M. F. Merezhinskiy, G. L. Taranovich, and L. Ye. Taranovich, Voprosy Med. Khimii, 1956, No 1, pp 12-16 (from Referativnyy Zhurnal -- Khimiya, Biologicheskaya Khimiya, No 19, 10 Oct 56, p 34, (Abstract No 18057))

"It was found that after burns an additional supply of vitamin C to guinea pigs, which are not able to synthesize this vitamin, leads to its deposition in the tissues and organs, making up for its consumption by the organism during and after burns. On adding 90-95 milligrams of ascorbic acid to the ration, the vitamin C content is significantly increased in the liver, muscles, kidneys, and adrenals during the first 5 days after burns; then it begins to decrease and in 30 days after the burn trauma it reaches the original level."

Sum. 1274

Taranovich, G. L.

Deposition and mobilization of ascorbic acid in burned guinea pigs receiving various quantities of vitamin C. M. F. Merezhinski, G. L. Taranovich, and L. E. Taranovich (Med. Inst., Minsk). *Voprasy Med. Khim.* 2, No. 1, 12-16 (1956); cf. C.A. 46, 9795f. — Three series of exptl. animals and controls received diets contg. resp., 7-10, 35-40, and 90-95 mg./day of ascorbic acid (I). The I content of liver, adrenals, kidneys, muscles, and urine was detd. before and 1, 3, 5, 10, 15, 20, and 30 days after a burn. The left adrenal gland of animals on low, medium, and high-I diet contained, resp., 231.7, 429.23, and 822.7 mg. % of I calcd. on dry wt. basis. Following trauma, the I content of organs of animals on a low-I diet decreased at once considerably and in the liver, adrenals, and muscles did not regain original values within 30 days. In animals on a medium-I diet, the content of liver and kidneys did not decrease until 5 days following trauma, and the I content of all examd. organs was increased to more than the original level at some time within 30 days following trauma although sometimes decreasing thereafter. In animals on a high-I diet after trauma, the I content of liver, kidneys and muscle increased and in all examd. organs was higher than in those of control animals on low and medium diets. The concn. and total daily excretion of I in the urine of animals on a medium-I diet was usually lower after trauma; but in animals on a high-I diet the urinary concn. of I was usually higher than before trauma and the total daily excretion was almost as high. The av. wt. loss in g. 30 days after trauma in animals on a low, medium, and high I diet was 89.4, 67.0, and 25.2 g., resp.

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Cyrus C. Sturgis, Jr.

GLUSHAKOVA, N.Ye. [Hlushakova, N.E.]; LAGUTO, F.M. [Lahuta, F.M.];
IVANOVA, V.S.; MEREZHINSKIY, M.F. [Merazhynski, M.F.]; TARANOVICH,
G.L. [Taranovich, H.L.]; SHIFMAN, A.S. [Shyfman, A.S.]

Biosynthesis and metabolism of ascorbic acid in white rats during
fractional ionizing irradiation in small doses. Ventsi AN BSSR.
Ser.bial.nav. no.2:96-101 '62. (MIRA 15:8)
(RADIATION—PHYSIOLOGICAL EFFECT) (ASCORBIC ACID)

GLUSHAKOVA, N.Ye.; TARANOVICH, G.L.; LAGUTO, F.M.

Some indices of tissue metabolism in reduced function of the thyroid gland. Probl. endok. i gorm. 10 no.6:24-27 N-D '64. (MIRA 18:7)

1. Kafedra biokhimii Minskogo meditsinskogo instituta; rukovoditel' - prof. M.F.Merezhinskiy.

Taranovich, L.E.

3

Deposition and mobilization of ascorbic acid in burned guinea pigs receiving various quantities of vitamin C. M. P. Merezhinakii, G. L. Taranovich, and L. E. Taranovich (Med. Inst., Minsk). *Voprosy Med. Khim.* 7, NO. 1, 13-18 (1956); cf. *C.A.* 46, 9795f.—Three series of exptl. animals and controls received diets contg. resp., 7-10, 35-40, and 90-95 mg./day of ascorbic acid (I). The I content of liver, adrenals, kidneys, muscles, and urine was detd. before and 1, 3, 5, 10, 15, 20, and 30 days after a burn. The left adrenal gland of animals on low, medium, and high-I diet contained, resp., 231.7, 429.25, and 822.7 mg. % of I calcd. on dry wt. basis. Following trauma, the I content of organs of animals on a low-I diet decreased at once considerably and in the liver, adrenals, and muscles did not regain original values within 30 days. In animals on a medium-I diet, the content of liver and kidneys did not decrease until 5 days following trauma, and the I content of all examd. organs was increased to more than the original level at some time within 30 days following trauma although sometimes decreasing thereafter. In animals on a high-I diet after trauma, the I content of liver, kidneys and muscle increased and in all examd. organs was higher than in those of control animals on low and medium diets. The concn. and total daily excretion of I in the urine of animals on a medium-I diet was usually lower after trauma; but in animals on a high-I diet the urinary concn. of I was usually higher than before trauma and the total daily excretion was almost as high. The av. wt. loss in g. 30 days after trauma in animals on a low, medium, and high I diet was 80.4, 67.0, and 25.2 g., resp.

Cyrus C. Sturgis, Jr.

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MERZHIINSKIY, M.F.; TARANOVICH, G.L.; TARANOVICH, L.Ye.

Deposition and excretion of ascorbic acid in burns in guinea pigs
which received different quantities of vitamin C. 'op.med.khim.
2 no.1:12-16 Ja-P '56. (MIRA 9:9)

1. Kafedra biokhimii Minskogo meditsinskogo instituta.
(VITAMIN C, metabolism,
in exper. burns, eff. of various doses on excretion &
deposition (Rus))
(BURNS, experimental,
vitamin C metab. in, eff. of various doses on excretion
& deposition (Rus))

TARANOVICH, L. Ye., dots.

Medical biochemistry. Zdrav. Belor. 5 no.1:20-25 Ja '59. (MIRA 12:7)

1. Kafedra biokhimi(zav. - prof. M.F. Merezhinakiy) Minskogo meditsin-
skogo instituta.

(WHITE RUSSIA--BIOCHEMISTRY)

29

ca

Tanning materials. V. K. Nechaev, N. M. Iordanov, D. Shambheevich, M. J. Karpman and P. P. Gurev. *Lebaya Press*, No. 1, 43-4 (1961); *Chem. Zvest.* 1960, 1, 1040. — Willow bark: The barks of different willows contain an average of 10.5% tannin. Of the types native to the far East the following are important: *Salix pentandra*, *S. cinerea*, *S. alba* and *S. fraxinosa*. *Hamamelis*: This is native to middle Asia, grows wild and is collected. It has not been cultivated. *Hamamelis*: Of the different *Berberis* types, *Berberis aristata* gives the best values: water 9.8%, water insoluble 18.1% tannin and 21.1% mucilage, and water insoluble 40.0%. The plant is suitable for cultivation, requiring soil of pH 4.5. A disadvantage is that the wood is unusually small and drying requires great care. *Wald chestnut*: The contents of tannin in the different parts of the plant are: wood, tannin 8%, non-tannin 2%; bark, 10 and 4; leaves, fresh-fallen, 12 and 8; green husks, 8 and 2; and fresh male blossoms, 14 and 12.

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

TARANOVICH, V.A. (Moskva)

Vascular auto- and alloplasty in myxosarcoma of the soft tissues of
the hip. Eksp. khir. i anest. 9 no.2:27-28 Mr-Apr '64. (MIRA 17:11)

TARANOVŠ, V., kand. sel'khoz. nauk; NEILANDE, A., red.; KIRULE, E.,
tekh. red.

[Tomatoes] Tomati. Latvijas Valsts izdevniecība, 1961. 135 p.
(MIRA 15:3)

(Tomatoes)

TARANOVSKAYA, Mariya Grigor'yevna.

[Methods of studying root systems] *Metody izucheniia kornevykh sistem.* Moskva, ^Uos. izd-vo selkhoz. lit-ry, 1957. 215 p.
(Roots (Botany)) (MIRA 11:4)

USSR / Soil Science. Mineral Fertilizers. J-4

Abs Jour: Rozr-biol., No 8, 1958, 54376.

Author : Taranovskaya, H. G.

Inst : AS USSR (Rozovka Experiment Field of Leningrad Oblast).

Title : Combination of Manure and Mineral Fertilizers in Field Crop Rotation of South-Eastern Slopes of USSR.

Orig Pub: V sb.: Inst. organ. udobreniya USSR, Kiev, 1957, 45-52.

Abstract: According to experimental data of many years with winter wheat, the action of manure in the doses of 20 t/ha is equal to NPK in the doses of 45 kg/ha of nutritious matters. Study (in 1950 to 1953) of combinations of 10 to 20 % of manure with mineral fertilizers amounting of 30 to 45

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USSR / Soil Science. Mineral Fertilizers.

J-1

Abs Jour: Ref Zhur-Biol., No 8, 1958, 34376.

Abstract: kg/ha of nutrients, has shown their preference in comparison with split introduction, and the expediency of lowering the doses of manure (to 10 t) in utilization of it with mineral fertilizers in normal doses. This study has been carried out at the Rozovka Experiment Field of Zaporozhskaya Oblast. -- V. V. Prokoshov.

Card 2/2

TARANOVSKAYA, M.G., kand. sel'skikh. nauk

Space arrangement and the root system of corn. Zemledelie 25
no.6:29-36 Je '63. (MIRA 16:7)

1. Rozovskaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta kukuruzy.
(Corn(Maize)) (Roots(Botany))
(Plants, Space arrangement of)

POLYAKOV, P.I.; TARANOVSKAYA, M.Z. (Leningrad)

Stereoscopic photogrammetric method of measuring deformations
of three-dimensional elements. Stroi. mekh. i rasch. soor. 5
no.3:7-11 '63. (MIRA 16:6)

(Photogrammetry)

FOLYAKOV, Pavel Ivanovich, kandi. tekhn. nauk; JARANOVSEKAYA,
Marianna Zenonovna, kand. arkhitekt. arkhitekt.; KARDAKOV, Mikhail
Sergeyevich, inzh.; GOROZOV, A.P., red.

[Use of stereophotogrammetry in architectural and construc-
tion practice] Primenenie stereofotogrammetrii v arkhitekturno-
stroitel'noi praktike. Leningrad, 1964. 22 p.

(MIRA 17:9)

TARANOVSKAYA, N. V.

"O tipakh severnoy respisi na bytovykh predmetakh."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

TARANOVSKAYA, V.G., kand.sel'skokhozyzstvennykh nauk

Increasing the action of fertilizers with slag. Zemledelie 24
no.4:68-70 Ap '62. (MIRA 15:4)
(Slag) (Fertilizers and manures)

TARANOVSKIY, I.

Scientists answer. Izobr.i rats. no.12:18-19 D '61.

(MIRA 14:12)

1. Predsedatel' soveta Obshchestvennogo universiteta tekhniki

g. Murom Vladimirskoy oblasti.

(Murom-- Technical education)

TARANOVSKIY, I.Ya.; POZDEYEV, A.A.

Mechanics of the process of drawing solid profiles including
hardening. Nauch.dokl.vys.shkoly; ser. no.1:97-104 '59.
(MIRA 12:5)

1. Ural'skiy politekhnicheskiy institut.
(Drawing (Metalwork))
(Deformations (Mechanics))

TARANOVSKIY, S. V.

USSR

"Fundamental Problems of Scientific research
work in the field of Hydraulic steel construction"
1947, Moscow

SOURCE: P: Gidrotekhnicheskoye stroitel' stvo
Abstracted in USAF "Treasure Island" Report No.
14568, on file in Library of Congress, Air
Information Division.

TARANOVSKIY, S. V., INCF.

USSR/Engineering - Hydraulics, Structures Feb 52

"Calculating Steel Gates of Hydraulic Structures" by
the Method of Limit State, Prof S. V. Taranovskiy,
Dr Tech Sci

"Gidrotekh Stroi" No 2, pp 38, 39

Reviews article under similar title written by Prof
N. S. Streletskiy and published in "Gidrotekh Stroi"
No 8, 1951, evaluating it as beginning of important
work in the field of further advancement of calculus
by method of limit state.

212767

98-58-7-21/21

AUTHOR: Taranovskiy, S.V., Doctor of Technical Sciences, Professor;
and Tsvetkov, A.P., Engineer.

TITLE: **Corresponding Member** of the AS of the Republic of Czechoslovakia, Frantisek Yermarzh, "Hydrotechnical Locks, Hydraulic and Counterpoised, with Automatic Control", Praha, State Publishing House of Technical Literature, 1956. (Chlenkorr. AN Chekhoslovatskoy Respubliki Frantisek Yermarzh "Gidrotekhnicheskiye zatvory, vododeystvuyushchiye i uravnoveshennyye, s avtomaticheskim upravleniyem", Praga, Gosud. izd. tekhnicheskoy literatury, 1956.)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 7, pp 62-64 (USSR)

ABSTRACT: The authors review the above mentioned book, which can serve as a manual for hydrotechnicians and builders, as well as a textbook for students of vuzes. There are seven diagrams.

1. Books--Review

Card 1/1

BALDIN, V.A.; TARANOVSKIY, S.V., prof., doktor tekhn.nauk; KHOKHARIN, A.Kh., kand.tekhn.nauk; BROUDE, B.M., doktor tekhn.nauk; CHUVIKIN, G.M., kand.tekhn.nauk; GURARI, M.D., inzh. [deceased]; LOKSHIN, Ye.E., kand.tekhn.nauk; KOVAL'CHUK, M.F., inzh., red.; STRASHNYKH, V.P., red.izd-va; RYAZANOV, P.Ye., tekhn.red.

[Technical specifications SN 113-60 for designing elements made of aluminum alloys] Tekhnicheskie usloviia proektirovaniia konstruktsii iz aluminievyykh splavov, SN 113-60. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam, 1960. 86 p. (MIRA 14:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Taranovskiy, Khokharin, Broude, Chuvikin). 3. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Baldin). 4. Gosudarstvennyy proyektnyy institut Proyektstal'konstruktsiya Glavstroyproyekta pri Gosstroye SSSR (for Gurari, Lokshin).

(Aluminum alloys)

BALDIN, V.A.; TARANOVSKIY, S.V., doktor tekhn.nauk

Aluminum in construction elements. Izv. ASIA no. 3:64-68 '60.
(MIRA 13:12)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR
(for Baldin).
(Aluminum, Structural)

MASCHOV, V.N., BELYAYEV, B.I., BALDIN, V.A., TARANOVSKIY, S.V.,
KHOZHARIN, A-Kh.

Possibilities of using aluminum and aluminum alloys in construc-
tion. Prom. stroi. 38 no.8:36-39 '60. (MIRA 13:8)
(Aluminum alloys) (Aluminum, Structural)

TARANOVSKIY, S.V., prof., doktor tekhn. nauk; KHOKHARIN, A.Kh., kand.
tekhn. nauk; VILKOV, G.N., red. izd-va; SHERSTNEVA, N.V., tekhn.
red.

[Structural members made of aluminum alloys] Konstruktsii is
aliuminevykh splavov; sostoianie i perspektivy razvitiia. Mo-
skva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. mate-
rialam, 1961. 68 p. (MIRA 14:9)

(Aluminum, Structural)

TARANOVSKIY, S.V.

Some results of developing the theme "Elements made of light
(aluminum) alloys" according to a coordinated plan. Stroi.mekh.i
rasch.soor. 4 no.4:47-48 '62. (MIRA 15:8)
(Aluminum alloys)

TARANOVSKIY, S.V., doktor tekhn.nauk, prof., red.; POPOV, S.A.,
kand. tekhn. nauk, nauchn. red.; ZUBKOVA, M.S., red.
izd-va; RODIONOVA, V.M., tekhn. red.

[Structural elements made of aluminum alloys; design
analysis, and manufacture] Stroitel'nye konstruktsii iz
aluminievyykh splavov; proektirovanie, issledovanie, iz-
gotovlenie. Pod obshchei red. S.V.Taranovskogo. Moskva,
Gosstroizdat. No.2. 1963. 290 p. (MIRA 17:2)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut
stroitel'nykh konstruktsiy.

TARASCHEN, A. D.

dissertation: "Influence of some pharmacological substances on hallucinations."
Soviet med sci, Khar'kov Medical Institute, Khar'kov, 1954. (Referativnyy zhurnal-analizi,
No 11, Moscow, Jun 54)

SO: JMH 318, 23 Dec 1954

TARANSKAYA, A. D.

✓ The action of atropine and pilocarpine on conditioned reflexes of psychotics. A. D. Taranskaya (Med. Inst., Kharkov). *Zhur. Vysheĭ Nervnoi Deyatel'nosti im. I. P. Pavlova* 6, 100-7(1966).—Atropine increases the rate of development of conditioned reflexes, decreases the latent period, and increases excitation processes in the brain, thereby decreasing the differentiation. Pilocarpine has the opposite properties.

Med. /

J. A. Sickel

Chair of Psychiatry

APTER, I.M.; BOLOTOVA, Z.M.; LITVINOVA, N.M. [Lytvynova, N.M.]; TARANSKAYA,
A.D. [Tarans'ka, A.D.]

Some patterns of the action of different neurotropic substances
on the higher divisions of the brain. Fiziol. zhur. [Ukr.] 7
no.5:585-591 S-0 '61. (MIRA 14:9)

1. Laboratoriya patofiziologii vysshey nervnoy deyatel'nosti
Ukrainskogo nauchno-issledovatel'skogo psikhonevrologicheskogo
instituta, Khar'kov.
(BRAIN) (PHARMACOLOGY)

TARANT, Jiri

Prospects of the brewing and malting research. Kvasny prum
9 no.5:103-104 My '63.

1. Vyzkumny ustav pivovarsky a sladarsky, Praha.

TARANT, Josef, inz.

Electric equipment for designed medium-sized continuous rolling mill 400. Hut listy 18 no.5:329-337 My '63.

1. Hutni projekt, Plzen.

TAPANT, MILAN

The Czechoslovakian Coal Industry on the Path to Mechanization.
Minno Delo (Mining), #12:50:Dec 54

TARANT, MILAN

New Information on the Fight against Silicosis in the German Democratic Republic. Minno Delo (Mining), #12:55:Dec 54

TARANTAYEV, T. M.

"Characteristics of Dysentery Epidemiology and Experiments in Fighting it
in One of the Industrial Centers of the Southern Kirghiz SSR." Cand Med Sci,
Kazakh State Medical Inst ineni V. M. Molotov, Alma-Ata, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

TARANTAYEV, T. M.

USSR/Medicine - Dysentery

Card 1/1

Author : Tarantayev, T. M.

Title : Experience in combatting dysentery in one of the industrial centers of southern Kirghizia

Periodical : Zhur. mikrobiol. epid. i immun. 4, 17-22, Apr 1954

Abstract : The effectiveness of prophylactic and antiepidemic measures used to combat dysentery under epidemiological conditions was studied by an expedition of researchers and sanitation workers in an industrial center in southern Kirghizia during the course of 1952. The city was arbitrarily divided into experimental and control section. The latest sanitation and antiepidemic measures were put into effect in the former, while only observations and minimal treatment were carried out in the latter. The results of the experiment are illustrated by a chart showing the frequency with which various intestinal disorders were encountered during 1951 and 1952, and two graphs showing the incidence of dysentery and dyspepsia during the same period. No references are given.

Institution : Kirghiz Institute of Epidemiology, Microbiology, and Hygiene (Director-Docent T. L. Proreshnaya)

Submitted : February 28, 1953

TARANTAYEV, T.M.

Methods of health education work in foci of dysentery. Zhur.mikro-
biol.epid.i immun. no.3:100-102 Nr '55. (MLRA 8:7)

1. Iz Kirgizskogo instituta epidemiologii, mikrobiologii i gigiyeny
(dir. V.M.Perel'gin).

(DYSENTERY, BACILLARY, prevention and control,
in Russia, educ. prev. technics)

TARANTAYEV, T.M.; TOKAR', S.Kh.; KUVSHINNIKOV, S.M.; ZUBOVA, Ye.Kh.; MINYEVA,
R.G.; ONISHCHENKO, G.P.

Seroprophylaxis of Botkin's disease. Zhur.mikrobiol.,epid.i immun. 30
no.11:11-15 N '59. (MIRA 13:3)

1. Iz Kirgizskogo instituta epidemiologii, mikrobiologii i gigiyeny i
kafedry organizatsii zdavookhraneniya Kirgizskogo meditsinskogo insti-
tuta.

(HEPATITIS, INFECTIOUS prev. & control)
(GAMMA GLOBULIN ther.)

TARANTIN, G.

Our assistants. Posh. delo 5 no.6:12 Je '59. (MIRA 12:8)

1. Nachal'nik oblastnoy posharnoy okhrany Tashkentskogo oblispolkoma.
(Tashkent--Fire prevention--Inspection)

L 23989-66 EWT(1) IJP(e)
ACC NR: AP6007810 SOURCE CODE: UR/0120/66/000/001/0041/0045

AUTHORS: Tarantin, N. I.; Dem'yanov, A. V. ⁴⁶
ORG: Joint Institute of Nuclear Research, ^{Ob'yedinenny institut}
yadernykh issledovaniy ^B

TITLE: Design of magnetic analyzer of a mass separator

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 41-45

TOPIC TAGS: magnetic analyzer, mass spectrometer, ion interaction,
ion beam focusing

ABSTRACT: The authors describe the design of the ^{2/}magnetic analyzer
of the mass separator constructed at the Laboratory of Nuclear Reac-
tions of OIYaI for mass-number identification of radioactive nuclei
produced in reactions induced by heavy accelerated ions. The mass
separator itself is described elsewhere (PTE, 1966, no. 2, in press).
The magnetic analyzer employs first-order double focusing and is built
around a commercial electromagnet (SP-57). The ion beam is focused
in magnets of the sector type with plane-parallel gap by means of the

Card

1/2

UDC: 621.384.8;539.16

L 23989-66
ACC NR: AP6007810

interaction between the moving ion and the horizontal component of the stray magnetic field when the ion crosses the edge of the magnet at an oblique angle. The factors governing the choice of dimensions for such an analyzer are first discussed, followed by an analysis of methods of improving the focusing. The analyzing ability of the designed analyzer is compared with that of other designs and it is expected that the magnetic analyzer should provide a resolution of 400 -- 250 simultaneously in a mass-number range $M + \Delta M = 100\% \pm 10\%$. A beam with a vertical dimension up to 55 mm should be reduced to a small spot in the focal plane. Orig. art. has: 1 figure, 8 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 22Jan65/ ORIG REF: 007/ OTH REF: 006

Card

2/2 *sla*

TARANTIN, N. I.

Category : USSR/Nuclear Physics - Structure and Properties of Nuclei

C-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3216

Author : Guseva, L. I., Filippova, K. V., Cerlit, Yu. B., Druin, V.A.,
Myasoyedov, B. F., Tarantin, N. I.

Title : Experiments on Obtaining En and Pa with a Cyclotron.

Orig Pub : Atom. energiya, 1956, No 2, 50-54

Abstract : Report of production of transplutonian elements by bombarding U with nuclei of N and sextuple-charged ions of O were accelerated with a cyclotron having a magnet with pole diameters of 150 cm. The transplutonian elements were separated by the fluoride method using La as a carrier. The half lives and the energies of the α particles were measured with the aid of photographic plates and an ionization chamber with a spherical electrode. The quintuple-charged ions of N were obtained in a specially developed slit - type source. The energy of the N ions at the maximum radius was 105 Mev, and the ion current was 5×10^{-7} amp. Irradiation of U by N ions produced the isotope En^{247} , identified by the value of T and by the energy of the α particles. Sextuple-charged O ions were obtained by "stripping" double-charged O ions on molecules of the residual gas in the cyclotron chamber. The maximum

Category : USSR/Nuclear Physics - Structure and Properties of Nuclei C-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3216

energy of the accelerated sextuple-charged ions of O at the maximum radius was 120 MeV. The current of ions with energies exceeding 100 Mev was 3×10^{-9} amp. The isotope Fm was obtained by exposing U to ions of O and was identified by the value of T and by the energy of the α -particles. Several hundreds of atoms each of isotopes of Cf, Bk, and Cm were separated by the chromatographic method.

Card : 2/2

TARAN, N.

620
EXPERIMENTS ON THE CREATION OF EINSTEINIUM
AND FERMIUM IN A CYCLOTRON. L. I. Guseva, K. V.
Filipova, Yu. B. Gerlit, V. A. Braun, B. F. Myzonenko, and
N. I. Tarasova. Soviet J. Atomic Energy, No. 2, 193-7
(1966).

The results are presented of some experiments on the
creation of einsteinium and fermium by cyclotron irradi-
ation of a uranium target with quintuply charged nitrogen
ions (N⁵⁺) and sextuply charged oxygen ions (O⁶⁺). The
half lives and α -particle energies were measured with the
aid of photographic plates, an ionization chamber with a
spherical electrode, and a twenty-channel pulse-amplitude
analyzer. The separation of transplutonic elements was
performed by a chromatographic method. (auth)

[Handwritten initials]

PARSONS, M. E.

15
1-PMZ

Experiments on the production of ²³⁵U and ²³⁸U
 with a cyclotron. L. I. Guseva, E. V. Filippova,
 Yu. B. Gerlit, V. A. Drum, B. P. Myasojov, and N. I.
 Taragin. Atomic Energy (U.S.S.R.) (English translation)
 No. 2 (Pub. in J. Nuclear Energy 3, 341-G (1958)). --By
 bombarding U with Na⁺ accelerated to 105 m.e.v. ²³⁵U
 was obtained. It was identified by the half-life and α -
 particle energy. From a U target bombarded with 120-
 m.e.v. O⁺ ²³⁸U was produced and similarly identified.
 Several hundred atoms of ²³⁵U, ²³⁸U, and ²³⁹U isotopes were
 produced. chromatographically James L. Laur

6/1-4E4J

Handwritten initials

PM PMZ
MT

TARANTID, N. I., PTI, OVA, K. V., PLEBOV, G. N., GALLIF, Yu. P., GEDWA, L. I.,
MYASOYEDOV, B. F.

(Acad. Sci. USSR)

"Mass Distribution of Fission Fragments Formed by Nitrogen Ions on Gold and Uranium Nuclei,"

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

TARANTIN, N.I.

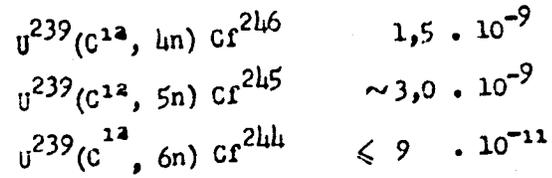
56-2-4/47

AUTHOR GERLIT, Yu.B., GUSEVA, I.I., MYASOYEDOV, B.F., TARANTIN, N.I.,
 FILIPPOVA, K., FLEROV, G.M.

TITLE Yield of Californium isotopes produced in the interaction between
 Carbon isotopes and Uranium nuclei
 (Vykhody isotopov kaliforniya v reaktsiyakh vzaimodeystviya bnov
 ugleroda s yadrami urana. Russian)

PERIODICAL Zhurnal Eksperim. i Teoret. Fiziki 1957, vol 33, nr 2 (8), pp 232 -
 - 342 (U.S.S.R.)

ABSTRACT In a 67 cm cyclotron four-fold charged carbon ions are accelerated up
 to 90 MeV. With this energy they impinge upon a thick uranium target
 and cause the reaction U(C, n)Cf. The absolute yields per impinging
 carbon ion and the following reactions are:



The fissioning of uranium bombarded with carbon was found to be
 $3,8 \cdot 10^3$ times more probable than the evaporation process of neu-
 trons from the intermediary nucleus Cf²⁵⁰.

Card 1/2

56-2-4/47

Yield of Californium Isotopes Produced in the Interaction of
Carbon Isotopes and Uranium Nuclei

(With 1 table and 4 illustrations).

ASSOCIATION

Academy of Sciences of the USSR
(Akademiya nauk SSSR)

PRESENTED BY

SUBMITTED

5.3.1957

AVAILABLE

Library of Congress

Card 2/2

AUTHORS: Tarantin, M. I., Gerlit, Yu. B., Guseva, L. I., 56-2-7/51
Myasoyedov, E. F., Filippova, K. V., Flerov, G. N.

TITLE: The Mass Distribution of Fission Products Produced by the
Irradiation of Gold and Uranium by Nitrogen Ions
(R. spredeleniye po massam produktov deleniya,
obrazuyushchikhya pri obluchenii zolota i urana ionami
azota)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958,
Vol 34, Nr 2, pp 316-321 (USSR)

ABSTRACT: The present work investigates the mass spectrum of the
fission fragments of radon and einsteinium which are formed
in the irradiation of gold and uranium with nitrogen ions.
First the experimental method is discussed. Gold- and
uranium plates of a thickness of 30 μ were irradiated with
five-times charged nitrogen ions from a slit source at the
inner ray of an 150 cm cyclotron. The energy of the nitrogen
ions was 115 MeV. After the dissolution of the irradiated
target the different radioactive elements on the
corresponding carriers were dissolved. The radioactive

Card 1/3

The Mass Distribution of Fission Products Produced by the
Irradiation of Gold and Uranium by Nitrogen Ions

58-2-7/51

isotopes were identified according to their half life. The relative yields of the nuclei identified this way are listed in a table. A diagram shows the yields of the nuclei given in this table as a function of the mass number A . The main part of the yield of fission products is concentrated within a comparatively narrow interval of mass numbers. The yield of fission fragments increases rather greatly with an increase of the mass number from 70 to 100, and with still greater mass numbers it decreases to the same extent. From the experimental values of the yields of single nuclei the total yields of the corresponding mass series (massovaya tseepochka) were computed. The additional taking into account of the yields of nuclei not identified in these experiments changes only little the character of the distribution of experimental points. The curve of the distribution of fission fragments in relation to the mass with the values $A = 85$ to 115 has the shape of a narrow peak with a half width of about 20 mass units. The yields of $\text{Ca}^{72,73}$, Se^{123} , Sb^{122} and the yields of the series of decays corresponding to these nuclei do not coincide with the monotonous course of the curve and are a little greater as normal. About 20

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**The Mass Distribution of Fission Products Produced by the
Irradiation of Gold and Uranium by Nitrogen Ions**

56-2-7/51

different isotopes were identified among the fission products forming in the irradiation of uranium with nitrogen ions. The yields of the accumulated nuclei are collected in a table. The fission of nuclei under the action of heavy particles can be represented by the following scheme:
Formation of a compound nucleus, emission of neutrons and fission. The half width of the curve of the distribution of fission fragments on the mass is considerably smaller in the fission of radon than in the fission of einsteinium. There are 2 figures, 2 tables, and 10 references, 4 of which are Slavic.

SUBMITTED: August 20, 1957

AVAILABLE: Library of Congress

1. Gold-Irradiation
2. Uranium-Irradiation
3. Nitrogen ions-Applications
4. Isotopes-Determination

Card 3/3

AUTHORS: Flerov, G. N., Corresponding Member, SOV/20-120-1-18/63
Academy of Sciences, USSR, Polikanov, S. M., Karanyan, A. S.,
Pasyuk, A. S., Parfanovich, D. M., Tarantin, N. I., Karnaukhov,
V. A., Druin, V. A., Volkov, V. V., Semchinova, A. M., Oganesyan,
Yu. Ts., Khalizev, V. I., Khlebnikov, G. I.

TITLE: Experiments on the Production of the 102-nd Element (Opyty po
polucheniyu 102-go elementa)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 1,
pp. 73 - 75 (USSR)

ABSTRACT: The present paper describes the experiments carried out at the
Institute of Atomic Energy, AN USSR (Institut atomnoy energii
AN SSSR) for finding the new element with the atomic number 102;
these experiments were carried out in autumn 1957. First the
authors refer to the experiments carried out in the first half
of 1957 at the Swedish Nobel Institute (Ref 1). In the experi-
ments of the authors the plutonium isotopes Pu²³⁹ and Pu²⁴¹
were irradiated with accelerated oxygen ions. Five times charged
oxygen ions were by the 100-cm-cyclotron accelerated to 102 MeV.
In most cases the ions with the maximum energy were used. The

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Experiments on the Production of the 102-nd Element SOV/20-120-1-10/63

targets consisted of Pu²³⁹ or Pu²⁴¹ layers which were 300 or 100 $\mu\text{g}/\text{cm}^2$ thick. The method used made possible the registration of an α -decay taking place within some seconds. At the collision of an oxygen ion with the energy of about 100 MeV with a plutonium nucleus such a great momentum is transferred to the intermediate nucleus that its range is greater than the thickness of the plutonium layer and of the protective copper layer. The nuclei formed in the irradiation of plutonium with a O^{16} beam were freely emitted from the target and fell on a collector where they came to a standstill at a certain depth. This collector was periodically applied to a thick-layered photoplate which was at a distance of 2 m from the target and which served for the registration of the α -particles resulting from the radioactive decay of the formed isotopes. The performance of the experiments is described in short. The method used in the present paper is suited for the registration of short-living α -active products of reactions with very small yields (up to cross sections of from 10^{-32} to 10^{-33} cm^2). Based on the analysis of the possible causes for the background and based on some control experiments the authors arrived at the following conclusion: the α -particles with an energy of $> 8,5$ MeV observed in the irradiation of

Card 2/3

Experiments on the Production of the 102-nd Element SOV/20-120-1-10/03

plutonium with oxygen ions most probably are connected with the decay of the isotopes of the 102-th element. Further control experiments with an improved method are planned. The authors thank I.V.Kurchatov, Member, Academy of Sciences, USSR, for his constant interest in this work. They also thank the collaborators under the supervision of Pustovoyt for the perfect operation of the cyclotron. There are 2 figures and 2 references, 1 of which is Soviet.

SUBMITTED: February 28, 1958

1. Plutonium isotopes (Radioactive)--Preparation 2. Plutonium isotopes (Radioactive)--Test results 3. Oxygen ions--Applications

Card 3/3

1 HR 100 N

Author, I. V. Guseva, L. I. Paschuk, A. S. Tarantov, P. I. Philippov, E. V.

801/56-36-3-1/71

21(7)
ARTICLES:

THE PRODUCTION CROSS SECTIONS FOR CALIFORNIUM ISOTOPES BY THE IRRADIATION OF ²³⁸U WITH ACCELERATED CARBON IONS (Sobremennyye issledovaniya kaliforniya pri obshchenii ²³⁸U s uскоренными ionami ugleroda)

PHYSICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol. 36, No. 3, pp 762-765 (USSR)

ABSTRACT: In the course of the irradiation of heavy elements with multi-charged ions compound nuclei are formed, which decay mainly as the result of fission or neutron evaporation. Important conclusions may be drawn with respect to the mechanism of synthesis from the ratio of the fission and evaporation processes in dependence on the excitation energy and the parameters of the compound nucleus. In the present paper results obtained concerning the energy dependence of the cross sections of the reactions ²³⁸U(C¹², 4n - 5n)Cf²⁴⁶⁻²⁴⁵ (cf. also references 1-3) and ²³⁸U(C¹², 5n - 6n)Cf²⁴⁶⁻²⁴⁵ are discussed. The ²⁴⁶Cf²⁴⁵ and ²⁴⁵Cf²⁴⁴ ions were accelerated on

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the ¹⁵O on cyclotron of the AS USSR up to 70 and 84 MeV respectively (with an accuracy of 3%). Energy measurement was carried out by absorption in aluminum. Measurement of the ion flux on the target was carried out by means of an integrator (0.2 - 0.3 μs). The results obtained by these measurements are given in figures 1 and 2 in form of diagrams. Figures 3 show the cross sections of the reactions (C¹², 4n - 5n) and (C¹², 5n - 6n) referred to the total production cross section of the compound nucleus in dependence on excitation energy. In the case of the reaction (C¹², 5n) towards that of the maximum of the reaction (C¹², 5n) towards that of the reaction (C¹², 5n) it appeared to be due to an inaccuracy of ion energy measurement. For the connection between the decay probabilities and the cross sections it holds that $\sigma_n = \sigma_f \left(\frac{W_n}{W_f} \right)^2$ where σ_n - total cross section of the neutron emission reaction in the case of a given energy of a compound nucleus, n - average number of emitted neutrons, σ_f - probability of neutron emission.

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of excited neutrons. σ_n - probability of neutron emission. $\frac{W_n}{W_f}$ - fission probability ($\bar{\nu}$ denotes the mean value) $\frac{W_n}{W_f}$ for californium is $\sim 1/2$ and varies only little in the interval of the excitation energy of 55 - 55 MeV. σ_n/σ_f for ²⁴⁶Cf(4n - 5n) is $\sim 1/2$ and for ²⁴⁵Cf(5n - 6n) $\sim 1/3$. The authors finally thank Professor G. N. Zhurav for interesting work, and they also thank the cyclotron team under Yu. V. Pustovoy and L. E. Tarantov for their collaboration in the practical part of this work. There are 3 figures and 3 references. 5. 1. 1959, 1959.

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GUSEVA, L.I.; MYASOYEDOV, B.F.; TARANTIN, N.I.; FILIPPOVA, K.V.

Cross sections of the formation of Cn^{240} by the radiation of
 Th^{232} with C^{12} and C^{13} ions. Zhur. eksp. i teor. fis. 37 no.4:
973-977 0 '59. (MIRA 13:5)
(Curium--Isotopes) (Thorium--Isotopes)
(Carbon--Isotopes)

TARANTIN, N. I., Cand Phys-Math Sci - (diss) "Reactions of neutron evaporation and of fission in the interaction of multiply-charged ions with heavy nuclei." Moscow, 1960. 12 pp; (Moscow Order of Lenin and Order of Labor, Red Banner State Univ im Lomonosov, Scientific Research Institute of Nuclear Physics); 120 copies; price not given; bibliography at end of text (23 entries); (KL, 19-60, 130)

*FLEROV, G.N.; POLIKANOV, S.M.; KARAMYAN, A.S. [deceased]; PASYUK, n.S.;
PARFANOVICH, D.M.; TARANTIN, N.I.; KARNAUKHOV, V.A.; DRUIN, V.A.;
VOLKOV, V.V.; SEMCHINOVA, A.M.; OGANESYAN, Yu.TS.; KHALIZEV, V.I.;
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Experiments to produce element No. 102. Zhur. eksp. i teor. fiz.
38 no.1:82-94 Jan '60. (MIRA 14:9)

1. Sotrudniki Ob"edinennogo instituta yadernykh issledovaniy (for
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i analiticheskoy khimii AN SSSR (for Myasoyedov).
(Transuranium elements)

TARANTIN, N.I.

Rivaling processes of fission and neutron evaporation in reactions
due to the interaction of multiply charged ions with heavy nuclei.
Zhur. eksp. i teor. fiz. 38 no.1:250-252 Jan '60. (MIRA 14:9)
(Nuclear reactions)

The Possibility of Proton Decay of Nuclei

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E006/B056

The boundary of p-stability also moves away from the range of stable isotopes in transition to nuclei with larger Z . Nuclei with $Z > 60$ should lose more than 10 neutrons in order to become p-active. Moreover, the authors discuss a determination of the lifetimes of p-active isotopes and give some estimates; also the part played by the competing processes (α -, β^+ -decay, K-capture) is discussed. For the purpose of estimating lifetime, the p-decay is considered to be a passage of the proton through the Coulomb barrier, and a formula by Bethe is used. A comparison between the energy ranges (Table 1) leads to the result that p-active nuclei with $Z < 20$ are highly improbable, as also such with $Z > 50$; in the former case the β^+ -decay competes, and in the latter the α -decay. Also the angular momentum of proton motion influences the emission probability, and that considerably more than in α -decay (Table 2). A p-decay would, except from the ground state, be possible also from excited states. Excitation might be due to a β^+ -decay, so that delayed protons would occur (like in the emission of delayed neutrons from fission fragments); radiative transitions would here be competitive. Such a case is discussed by the example of Sc^{41} and As^{67} ($E_p = 1.8$ and ~ 1 Mev, respectively). Finally, the authors

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The Possibility of Proton Decay of Nuclei

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discuss possible reactions that may lead to the formation of p-active isotopes, and give estimates of their cross sections. The most favorable seem to be reactions which are caused by charged particles and lead to neutron emission of the nucleus concerned. In this case particles with odd Z are chosen for bombardment, and particles with even Z having relatively light isotopes are used as targets. Table 3 contains several such reactions, among others the following:

p-active nucleus	formation reaction	E _{threshold} [Mev]	σ _{max} [cm ²]
Sc ³⁹	Ca ⁴⁰ (p, 2n)	25	5.10 ⁻²⁷
	Si ²⁸ (N ¹⁴ , 3n)	35	1.10 ⁻²⁷
Mn ⁴⁷	Cr ⁵⁰ (p, 4n)	50	1.10 ⁻²⁸
	A ³⁶ (N ¹⁴ , 3n)	35	1.10 ⁻²⁷
As ⁶³	Ge ⁷⁰ (p, 8n)	85	< 5.10 ⁻³⁰
	Fe ⁵⁴ (N ¹⁴ , 5n)	70	1.10 ⁻²⁸
Rb ¹⁰⁶	Zn ⁶⁴ (n ¹⁴ , 5-)	65	1.10 ⁻²⁷

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The authors thank Professor G. N. Flerov for suggesting the subject and for discussions. V. I. Gol'danskiy is mentioned. There are 3 tables and 11 references: 5 Soviet, 2 Canadian, and 4 US.

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TARANTIN, N.I.

[Asymmetry and symmetry of the masses of fragments in nuclear fission; review] Asimmetriia i simmetriia mass oskol'kov pri delenii iader; obzor. Dubna, Ob"edinennyi in-t iadernykh issl., 1961. 26 p.

(MIRA 14:11)

(Nuclear fission)

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AUTHOR: Tarantin, N. I.; Dem'yanov, A. V.

TITLE: On the design of double focusing magnetic spectrometers *AI* *21* *B*

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.2, 1965, 186-195

TOPIC TAGS: electron optics, magnetic field, particle beam, particle spectrometry

ABSTRACT: Focusing in the direction perpendicular to the plane of symmetry by the fringe field of a uniform field magnetic spectrometer is discussed in detail with the finite extent of the fringe field taken into account. It is shown that the focusing effect of the fringe field is equivalent to that of two thin lenses located at the entrance and exit edges of the field, and the parameters of these lenses, as well as those of the equivalent single thick lens, are calculated for the case that the magnetic field strength decreases linearly with distance in the fringe region. The conditions for both linear focusing (reduction of the width of a broad beam of parallel particles) and angular focusing (imaging of the source) are derived. The practical solution of these equations is discussed in some detail and charts are presented to facilitate computations. Orig.art.has: 25 formulas and 3

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